

S-E-C-R-E-T

1 April 1971

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MEMORANDUM FOR:

SUBJECT: Of Mice and Men
(Notes from the population policy front)

1. March 29th's Washington Post described an experiment with white mice which may cast new shadows on the population problem. Briefly, four pairs of mice were put in a large cage, fed as much as they wanted and observed. The population increased rapidly, the mice thrived and behaved normally. After a certain density was reached, however, their behavior changed, the young were rejected and eventually all became apathetic. So apathetic, in fact, that no young have been born for the mouse equivalent of years now and the youngest females are about to pass beyond their reproductive period. So endeth the white mouse.

2. Similar experiments with rats produced different results. As rat population grew in a fixed space, many became apathetic, like the white mice. Others grew hyper-aggressive, and fought so much they neglected to reproduce. Still other individual males became homosexual. Among the females who bore young, a high proportion rejected their babies, or neglected them. In sum, the birth rate declined rapidly after a certain degree of crowding

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was attained, and infant mortality rose at the same time so that in a number of these experiments, the rat population grew, declined and then levelled off at a point where normal behavior was resumed. It is not known if these experiments were continued so long that the cycle was repeated.

3. The well known lemmings have still another way of avoiding overpopulation. They commit mass suicide, though probably not on purpose, whenever the population pressure gets too great.

4. Guppies, however, have conservative habits, despite their reputations. Accidental events over the past years (the angel fish lost their taste for fresh guppy) resulted in two ongoing experiments with population explosions in my guppy tanks. The results to date provide somewhat more optimistic insights into the effects of overcrowding and prove (?) the usefulness of conservative habits.

Tank #1: Two females and one male were put into a tank, fed lavishly and observed (with some dismay). The population increased at astronomical speed. Shortly thereafter, the angels lost interest in little guppies as snacks and the guppy tank was not harvested. After the tank became very crowded, fewer babies were in

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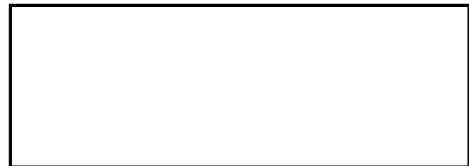
evidence, population growth slowed noticeably, and then the reaction set in. Fully adult fish took to lolling around on the bottom, lost most of their interest in the opposite sex, and began to die of no discernible disease. Their kith and kin disposed of the bodies rapidly although I did not reduce the food supply. The young fish survive, apparently happily, and are well on their way to becoming adults. More babies are in evidence each week and the cycle may be about to repeat. (This tank provides encouragement for those under 30.)

Tank #2: The population explosion took place in the same manner as in the first tank, but the reaction was entirely different. As density reached its critical level, the adults remained active, alert and very interested in baby guppies as food. The population stabilized quite rapidly. Only about 5 percent of the present population is infant or adolescent, and the adults seem determined to keep it that way. A few are managing to grow up by hiding in the densest part of the plantings, but only a few. The adults enjoy a varied diet and seem quite content. No abnormal symptoms are apparent, the tank remains disease free. (This tank provides less encouragement for those under 30.)

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The Question

5. Is there some lesson here for human populations in increasingly dense urban environment? Do rising crime rates, drug abuse, and young drop-outs indicate some analogy between rats and men? Cases of child abuse and neglect appear to be on the increase. In India, it is said, infant and child mortality among little girls is much higher because they are last to be fed. Or is there more resemblance between mice and men? Surely, only Jonathan Swift would detect any analogy between guppies, especially tank #2 guppies, and humankind.



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